

L Number	Hits	Search Text	DB	Time stamp
1	2827	sorensen-\$.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:37
2	5095	larsen-\$.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:37
3	1349	johansen-\$.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:37
5	9218	sorensen-\$.in. or larsen-\$.in. or johansen-\$.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:37
4	1	sorensen-\$.in. and larsen-\$.in. and johansen-\$.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:38
6	16	cua with (anticodon or anti-codon)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:53
7	2	(cua with (anticodon or anti-codon)) and (sorensen-\$.in. or larsen-\$.in. or johansen-\$.in.)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:38
11	1	"dsm 12086" or "dsm 12109" or "chcc4146" or "FA4-1-1"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:47
10	27	"DSM 12087" or pfg1 or pfg-1 or pfg1.1 or pfg-1.1	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:49
12	1	"dsm 12088"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:49
13	3	pfg1.1 or pfg-1.1	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:50
14	0	"DSM 12091" or "dsm 12108"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:50
15	1	pFG100 or pFG-100 or pFG200 or pFG-200	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:52
16	7473	lactococc\$4 or lactis	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:52
17	2	(cua with (anticodon or anti-codon)) and (lactococc\$4 or lactis)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:52

18	11	cua with suppressor	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:53
19	2	(cua with suppressor) and (lactococc\$4 or lactis)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:54
20	376	amber with suppressor	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:54
21	29	(amber with suppressor) and (lactococc\$4 or lactis)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:54
22	4	(amber with suppressor) same (lactococc\$4 or lactis)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/28 06:54

L5 ANSWER 1 OF 3 MEDLINE on STN DUPLICATE 1  
ACCESSION NUMBER: 2000208815 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10742196  
TITLE: A food-grade cloning system for industrial strains of  
Lactococcus lactis.  
AUTHOR: **Sorensen K I; Larsen R; Kibenich A;**  
**Junge M P; Johansen E**  
CORPORATE SOURCE: Department of Genetics and Microbiology, Chr. Hansen A/S,  
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hansen.com  
SOURCE: Applied and environmental microbiology, (2000 Apr) 66 (4)  
1253-8.  
Journal code: 7605801. ISSN: 0099-2240.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF174425  
ENTRY MONTH: 200005  
ENTRY DATE: Entered STN: 20000518  
Last Updated on STN: 20000518  
Entered Medline: 20000511

AB We have previously reported the construction of a food-grade cloning vector for *Lactococcus* using the ochre suppressor, supB, as the selective marker. This vector, pFG1, causes only a slight growth inhibition in the laboratory strain MG1363 but is unstable in the industrial strains tested. As supB suppresses both amber and ochre stop codons, which are present in 82% of all known lactococcal genes, this undesirable finding may result from the accumulation of elongated mistranslated polypeptides. Here, we report the development of a new food-grade cloning vector, pFG200, which is suitable for overexpressing a variety of genes in industrial strains of *Lactococcus lactis*. The vector uses an amber suppressor, supD, as selectable marker and consists entirely of *Lactococcus* DNA, with the exception of a small polylinker region. Using suppressible pyrimidine auxotrophs, selection and maintenance are efficient in any pyrimidine-free medium including milk. Importantly, the presence of this vector in a variety of industrial strains has no significant effect on the growth rate or the rate of acidification in milk, making this an ideal system for food-grade modification of industrially relevant *L. lactis* strains. The usefulness of this system is demonstrated by overexpressing the pepN gene in a number of industrial backgrounds.

(FILE 'HOME' ENTERED AT 07:04:37 ON 28 JUN 2004)

FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 07:05:03 ON 28 JUN 2004

L1 23010 S (SORENSEN, ?)/IN,AU  
L2 38651 S (LARSEN, ?)/IN,AU  
L3 12679 S (JOHANSEN, ?)/IN,AU  
L4 6 S L1 AND L2 AND L3  
L5 3 DUPLICATE REMOVE L4 (3 DUPLICATES REMOVED)  
L6 73466 S L1 OR L2 OR L3  
L7 1726 S (AMBER OR CUA) (S) SUPPRESSOR  
L8 1726 S (AMBER OR CUA) (S) SUPPRESSOR  
L9 343 S (AMBER OR CUA) (S) ANTICODON  
L10 1860 S L8 OR L9  
L11 16 S L10 AND L6  
L12 24881 S LACTOCOCC? OR LACTIS  
L13 12 S L11 AND L12  
L14 6 DUPLICATE REMOVE L13 (6 DUPLICATES REMOVED)  
L15 4 S L14 NOT L4  
L16 5 S PFG100 OR PFG-100  
L17 3 DUPLICATE REMOVE L16 (2 DUPLICATES REMOVED)  
L18 5 S PFG200 OR PFG-200  
L19 2 DUPLICATE REMOVE L18 (3 DUPLICATES REMOVED)  
L20 0 S L19 NOT L5

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